Update from CEF
Trust Services Forum
Berlin, 25 September 2019

Apostolos Apladas
eSignature Building Block
DIGIT – European Commission

The shift from paper to digital presents new challenges

At the heart of the digital transformation of public administrations is the shift from paper based public services to digital public services.

How can we ensure that citizens, businesses and public administrations can securely identify themselves and complete transactions online?

The eIDAS Regulation was designed to support the transformation.

With eIDAS

Digital services have the same legal validity as as traditional paper process

Digital services can be trusted and work securely across borders

Citizens and businesses benefit from the convenience of digital services and can make the most of the digital single market

How is the Commission helping governments and businesses build digital services which comply to eIDAS and EU regulations?

Standards.

The Connecting Europe Facility's mission is to support projects to use basic components, based on standards, that will ensure systems can communicate with each other.
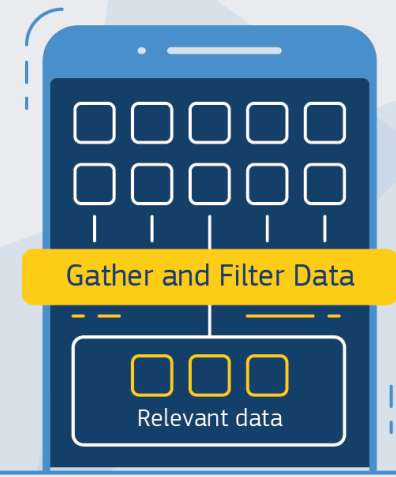
We call these basic digital components

Building Blocks.
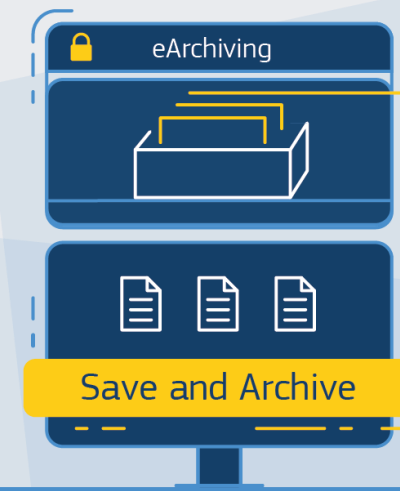
New

New

Big Data Test Infrastructure

Experiment with big data in a safe environment
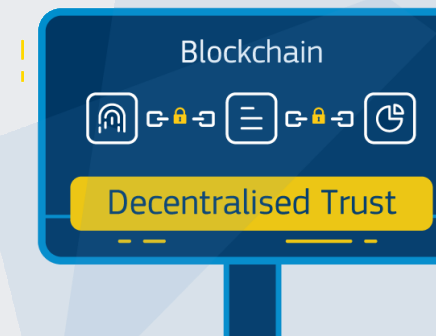
Context Broker

Collect & share real-time data from multiple sources

eArchiving

Store and preserve digital information

Blockchain

Increase trust through data security, privacy and transparency

eIDAS enablers

eInvoicing Directive
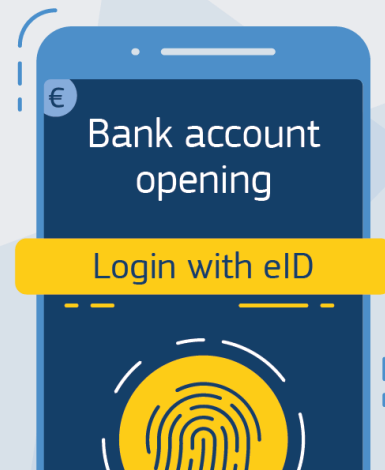
eID

Securely identify European citizens

eDelivery

Exchange data and documents securely
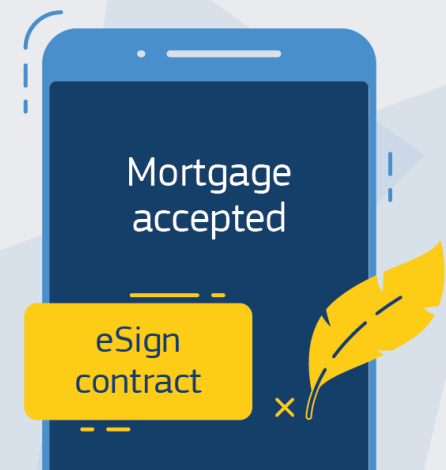
eSignature

Create and verify legally recognised electronic signatures

eInvoicing

Send and receive electronic invoices

eTranslation

Provide a multi-lingual public service

How does CEF support projects to use the building blocks?

Free Services

Training
sessions

Sample
software

Testing
services

How does CEF support projects to use the building blocks?

Funding opportunities

| Call	Open Calls	Deadline for submissions
CEF-TC-2019-1 **Automated Translation** (indicative budget: €4M)	14 February 2019	14 May 2019
CEF-TC-2019-1 **eID & eSignature** (indicative budget: €5M)	14 February 2019	14 May 2019
CEF-TC-2019-1 **eDelivery** (indicative budget: €1M)	14 February 2019	14 May 2019
CEF-TC-2019-2 **Public Open Data** (indicative budget: €5M)	4 July 2019	14 November 2019

More information on how you can apply, grant winners and on-going projects is available via INEA's website.

Visit INEA Website

European Commission

How many projects have used the building block?

158

projects

View Dashboard

Growing potential cases are bringing us closer to fulfilling the dream.
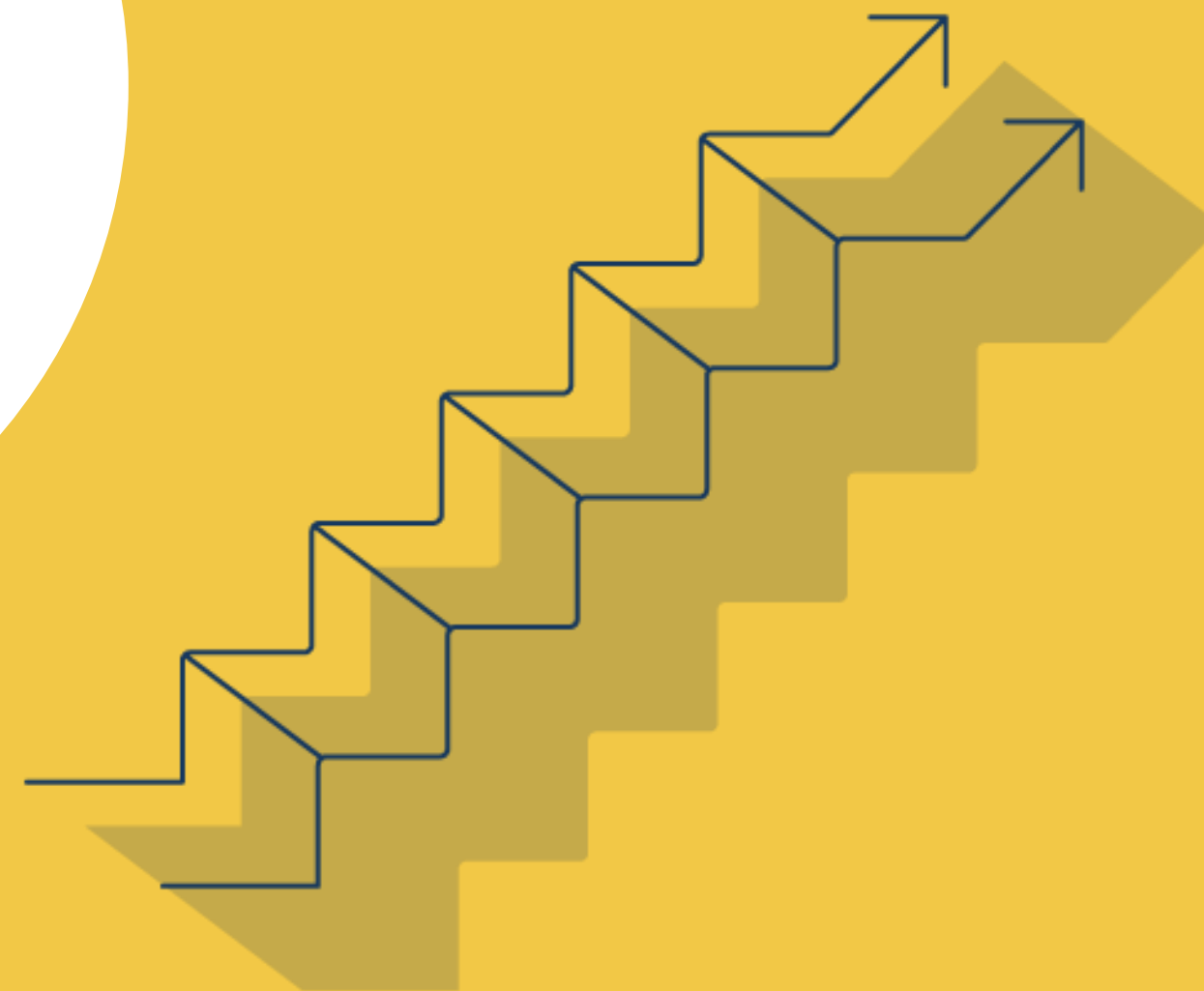
Connected Europe

Vision

Great experience for citizens and businesses
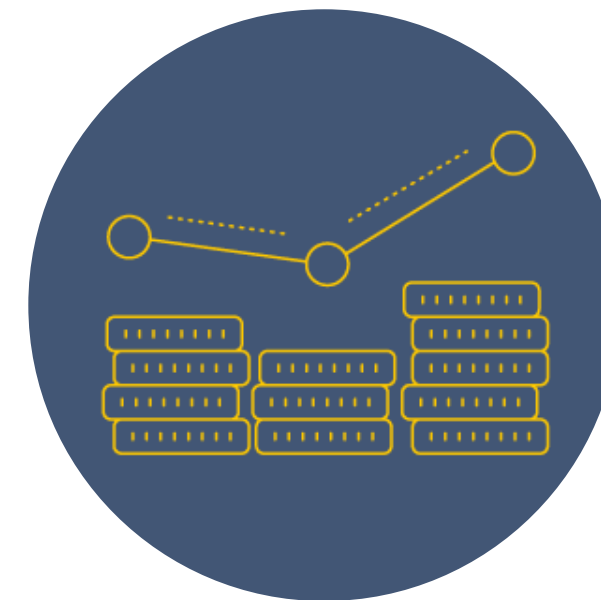
Building a data-economy
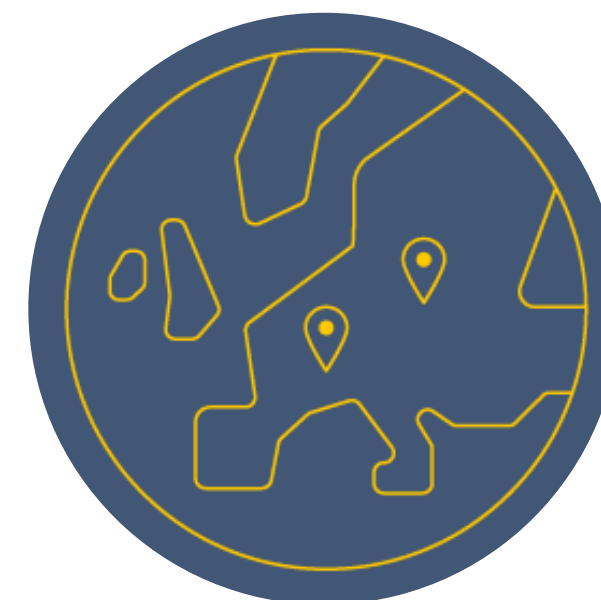
Promoting cross-border interoperability

European Commission

eSignature Building Block

- An update
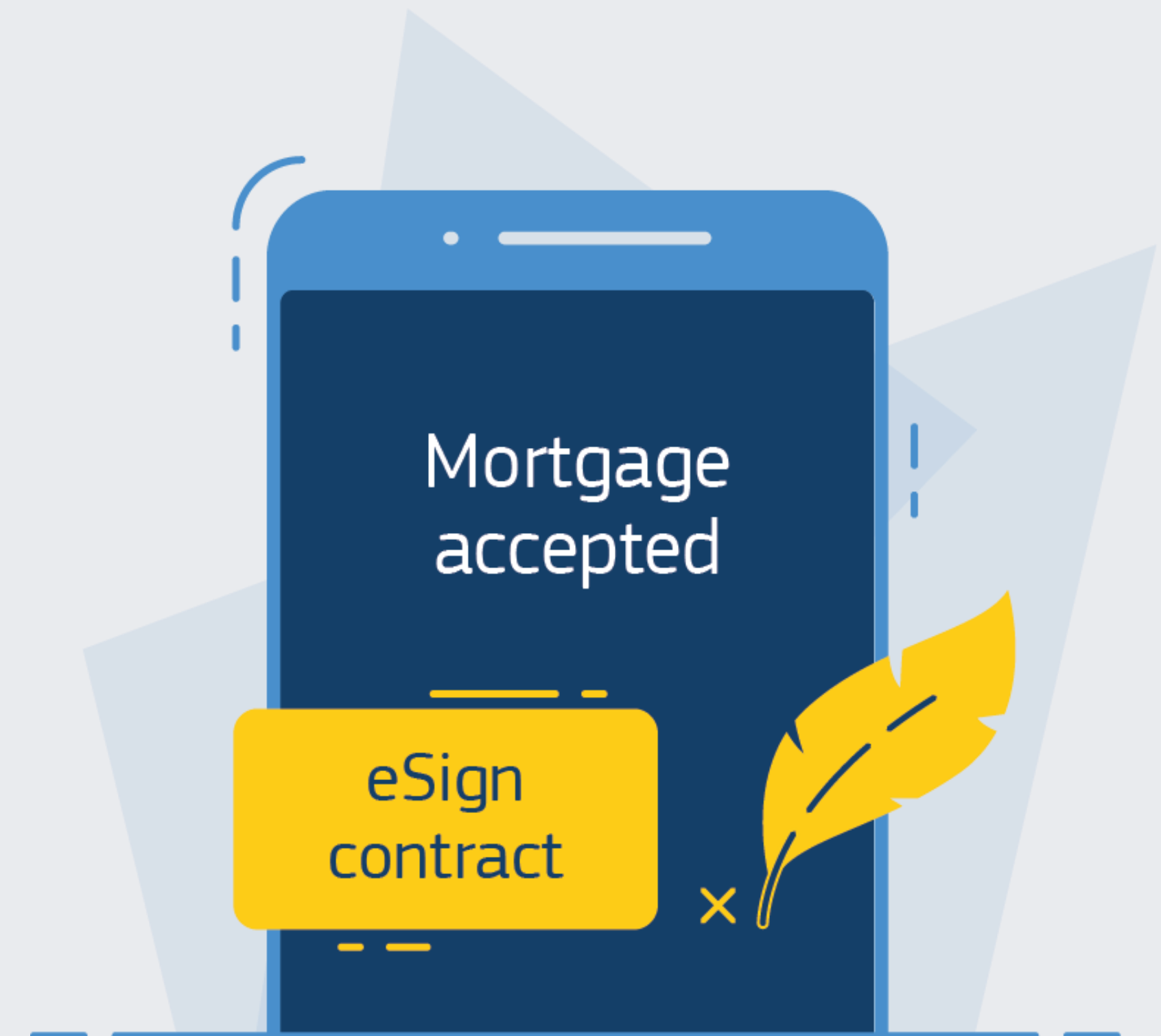
eSignature

Create and verify legally recognised electronic signatures

CEF eSignature Service Offering

ENABLING SERVICES *enable the adoption of the core services*

SOFTWARE

Sample software

Digital Signature Services (DSS) e-signature tool — **I**

OPERATIONS

Managed services

List of trusted lists — **U** **T** **I**

Trusted List Browser — **U**

TL-Manager tool for managing trusted lists — **T**

Testing

ETSI Trusted List Conformance Checker — **T**

ETSI Signature Conformance Checker — **I**

Support

Service desk — **U** **T** **I**

Monitoring of national trusted lists — **T**

ENHANCING SERVICES *enhance customer experience*

STAKEHOLDER MANAGEMENT

Onboarding

Follow-up

TLSO Community — **T**

CORE SERVICES *facilitate cross-border/ cross-sector technical interoperability among heterogeneous information systems*

TECHNICAL SPECIFICATIONS

European Profiles

Implementing Acts

Implementing Guidelines

STANDARDS OF ESOs

CEN Standards

ETSI Standards

E-signature standards — **I**

Trusted list standard — **T**

AUDIENCE

U E-signature users (general public)

I E-signature solution providers

T Trusted List Scheme Operators (TLSOs)

CEF eSignature Service Offering

Tools & software

Trusted List Browser
Tool to browse the European trusted lists. One can search by type of trust service and country, by name of the trust service or search a trust service that issued the signing certificate contained in a file

DSS open-source library
Open-source software library for creation and validation of electronic signature and seals. Out-of-the-box compliance with eIDAS Regulation and ETSI standards.

TL-Manager
Tool that enables the management of Member States' Trusted Lists.

eSig validation tests
Tool to test an eSignature implementation (software providers, TSP, conformity assessment bodies, supervisory bodies, ...). "Fake" LOTLs, TLs, certificates and signed documents are generated automatically, and refreshed on a regular basis.

Monitoring the quality of Trusted Lists:
Service meant to facilitate the improvement of the Trusted Lists through webinars, trainings, development of internal KPIs, etc.
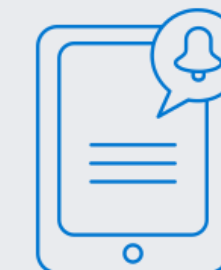
Notification tool   NEW
Tool that will help improve the notification system about trust services received from Member States. The information will be structured, centralised via an easy-accessible location and in a user-friendly way.

DSS downloads

+188%

3081

2344

1693

1488

1367

1173

2019 Semester 1

2018 Semester 1

2018 Q1   2018 Q2   2018 Q3   2018 Q4   2019 Q1   2019 Q2
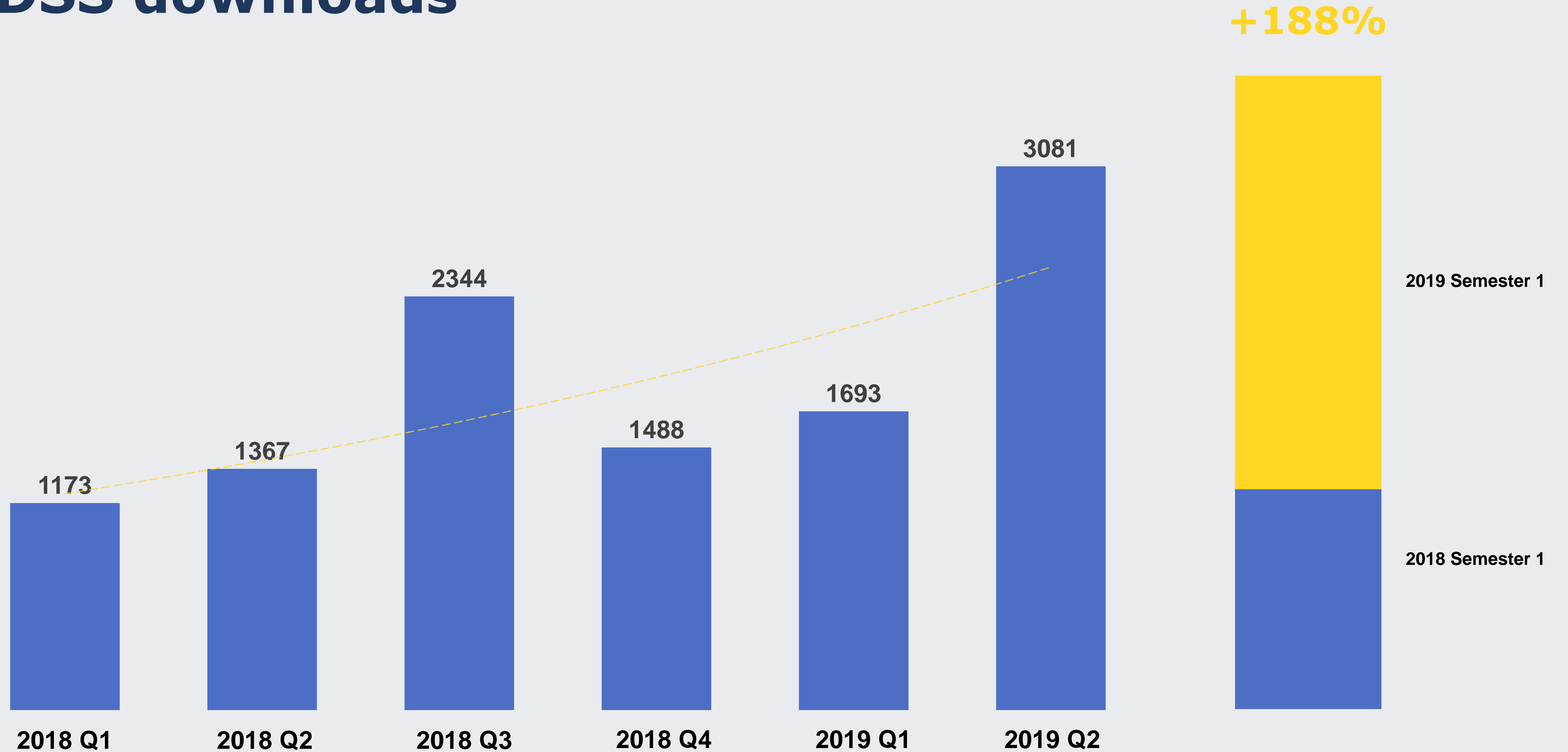
Source: European Commission

MAIN DOMAINS THAT USE ELECTRONIC SIGNATURES

- Energy
- Healthcare
- Tax declarations
- Banking system
- Employment contracts
- Land registration and management

- Employment contracts

- Energy
- Healtcare
- Banking system
- Management of public documentation
- Tax declarations
- Education

- Healtcare

FINLAND

NORWAY

ESTONIA

- eProcurement
- Management of public documentation

- Employment contracts

- Banking system
- Management of public documentation

NETHERLANDS

BELGIUM

FRANCE

LIECHTENSTEIN

- Banking system
- Management of public documentation

- eProcurement
- Banking system
- Management of public documentation

BULGARIA

GREECE

- Education
- Land registration and management
- Tax declarations
- Banking system

MALTA

Source: Information collected by the Member States

Qualified Trust Service Providers in Europe

Active qualified trust service providers only **194 in 2019** (182 in 2018)
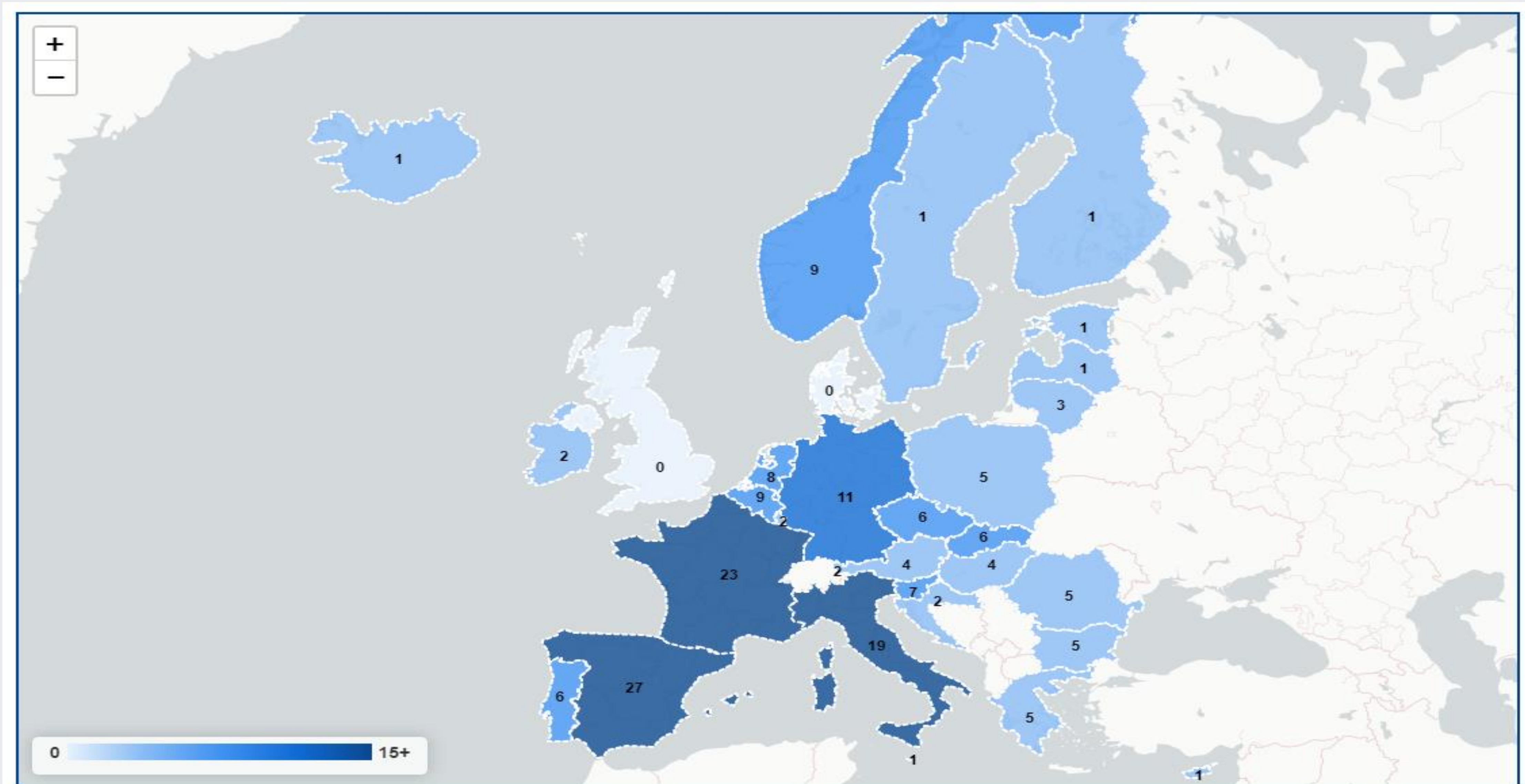
Source: Information collected by the Member States

Evolution of the total number of QTSP

This chart shows the evolution of the total number of active Qualified Trust Service Providers.
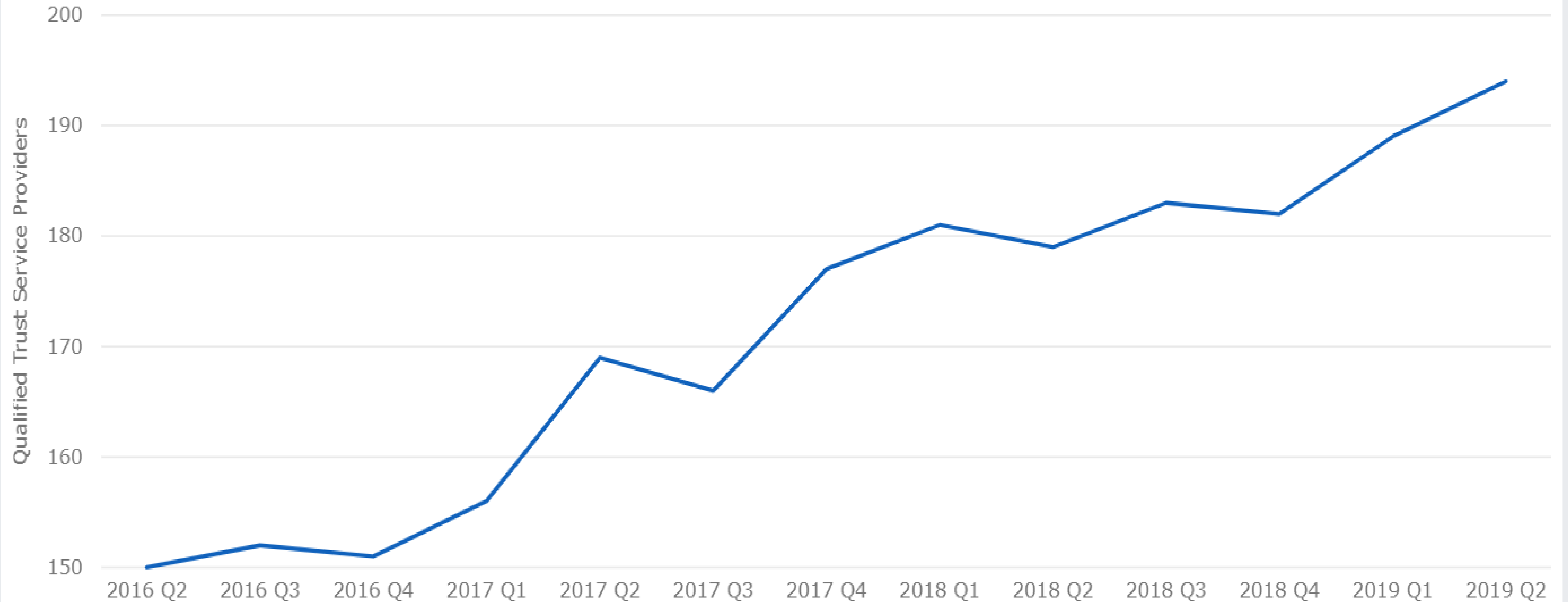
Source: Information collected by the Member States

Number of active QTSP

Number of active qualified trust service providers (QTSPs) per type.

Breakdown per type of qualified trust services. There are 9 types of qualified trust services, as defined in the Regulation n°910/2014 (the "eIDAS" Regulation). These types are:
- Qualified certificate for electronic signatures
- Qualified certificate for electronic seals
- Qualified certificate for web site authentication
- Qualified validation of qualified electronic signatures
- Qualified validation of qualified electronic seals
- Qualified preservation of qualified electronic signatures
- Qualified preservation of qualified electronic seals
- Qualified electronic time stamps
- Qualified electronic registered delivery
Please refer to **ETSI TS 119 612 v2.1.1** for further details on the information contained in a trusted list, in particular Section 5.5.1 "Service type identifier" for a description of the different (qualified) types.

ℹ Click on a pie slice to see details of type by country. Click again anywhere on chart to come back to global overview.

177 Active QTSP in 29 countries
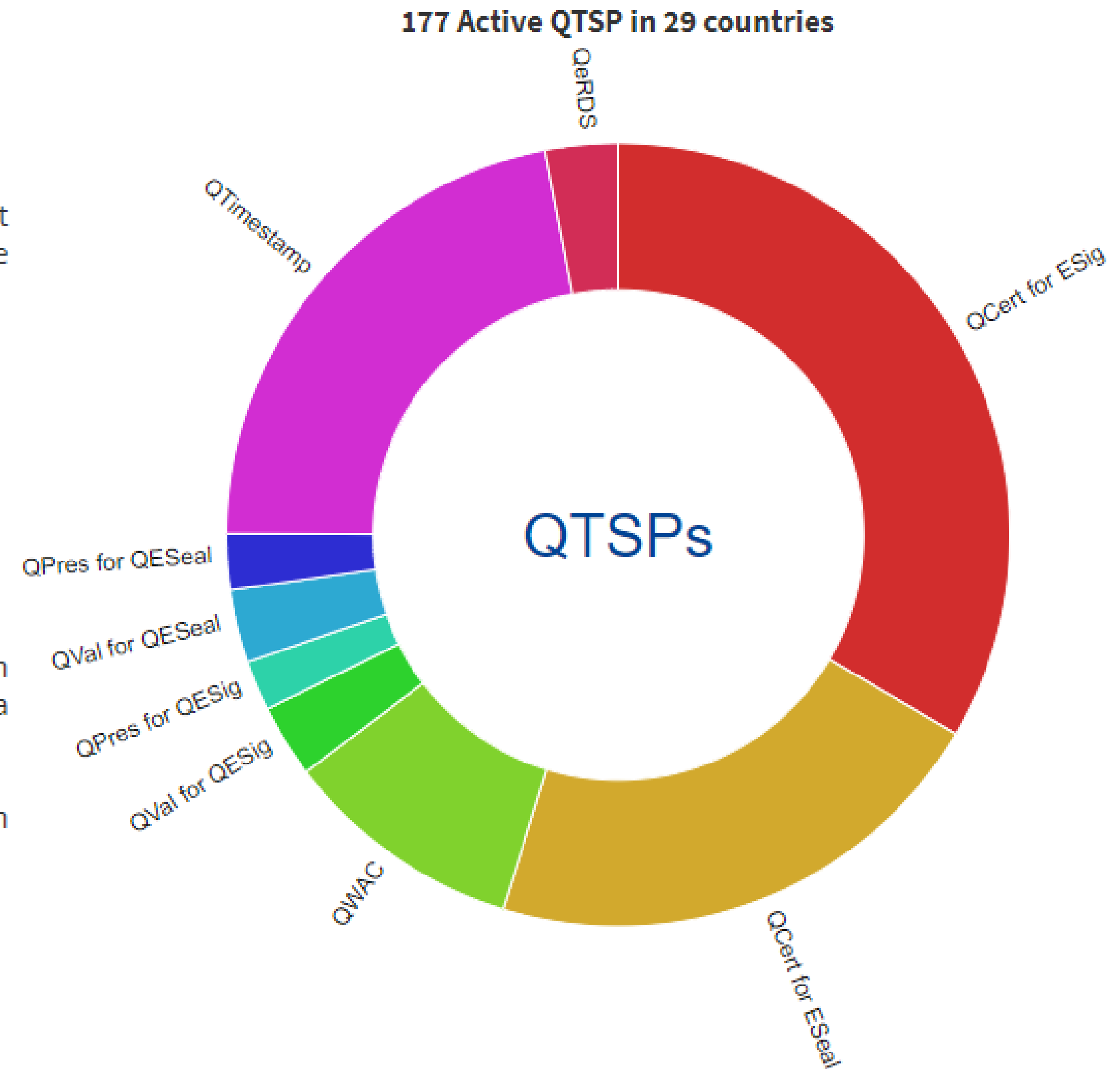
ARES NOTES / DOCUMENT SIGNING

European Commission's Document Management System

Main **Annex**

DOC XLS

ARES DOCUMENT

DOC XLS

PDF

4 PDF CONVERSION

ARES

EU-SIGN SERVICE

ARES

EU-SIGN SERVICE

ARES

EU-SIGN SERVICE

Main

A

PDF

Annex

A

PDF

ARES DOCUMENT

8 REGISTER ARES STAMP

User 1
1 LAUNCH
E-SIGNATORY

User 2
2 CONTRIB TASK

User 3
3 VISA TASK

User 4
5 E-SIGN TASK

PDF

SIGNED PDF

User 5
6 E-SIGN TASK

PDF

SIGNED PDF

User 1
7 EXP TASK
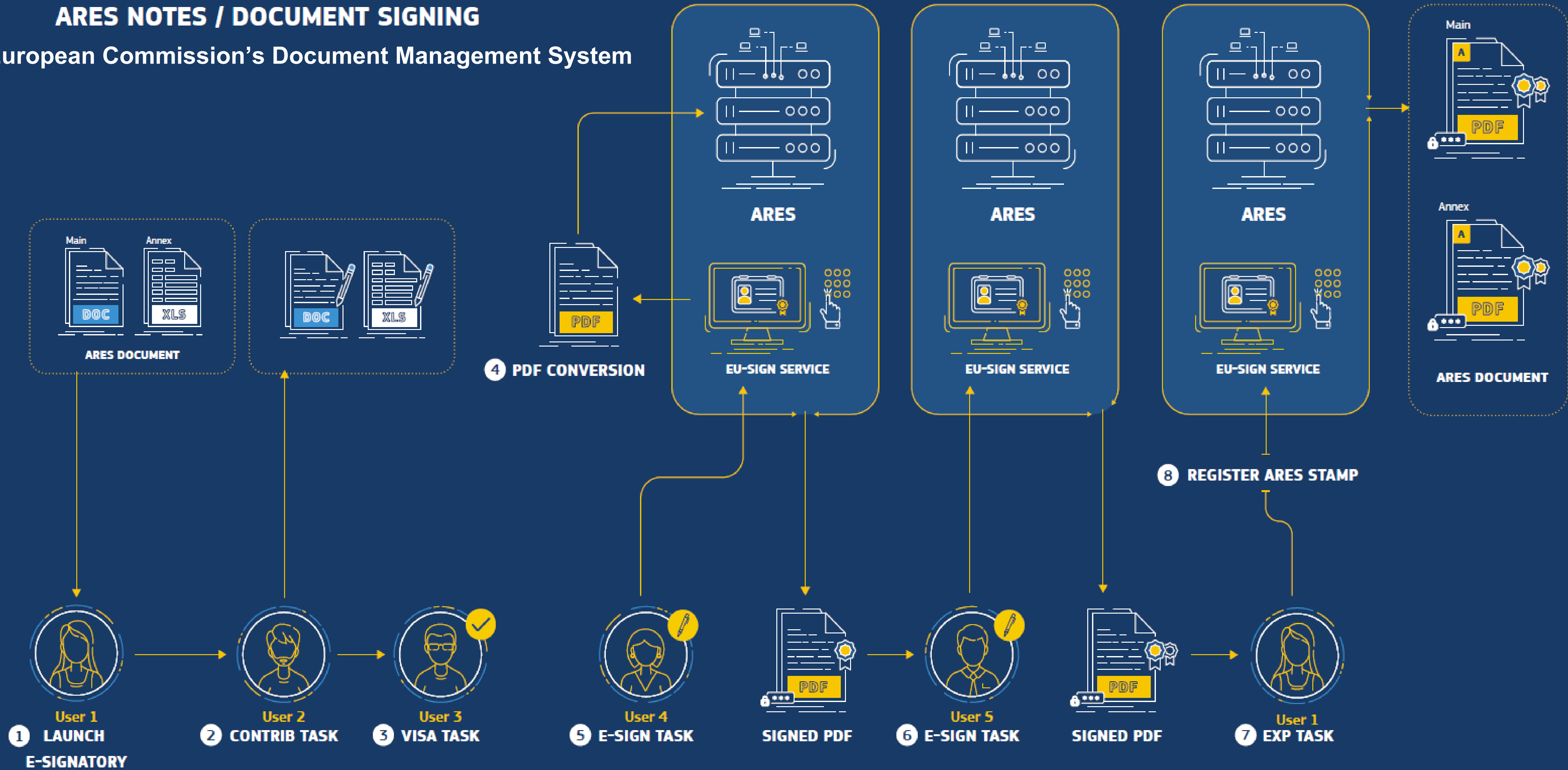
First electronic signature on an EU Regulation

Connecting Europe Success Story - eSignature

- Antonio Tajani e-signing on behalf of the European Parliament

BUILDING BLOCK USED

- eSignature

ORGANISATION

- Council of the European Union and the European Parliament

CHALLENGE

- To set an example for all of Europe
- Make legislative process more efficient

SOLUTION

- The **European Parliament Electronic Signature Console**, based on the Digital Signature Service (DSS) of the CEF eSignature Building Block

READ THE SUCCESS STORY:
europa.eu/!fd89Jd

Next steps

Q3

2019

Completed activities

- **Workgroup for the federation of electronic signatures among European Institutions**
- Publication of the recently modified location of the LOTL in the Official Journal
- DSS version 5.5
- TL-Manager version 5.6
- FAQs
- eSignature video

Q4

2019

Planned activities

- **EC/EP debate on topics such as formation of a center of excellence and joint trainings on e-signatures**
- Country sheets infographics
- New service desk
- TLSO webinar
- TLSO training

Q1/2

2020

Planned activities

- **Roll-out of EU Sign, a DSS based application, as the solution for eSignatures at EC**
- Notification tool
- Internal KPI for monitoring
- Enrich TL Browser
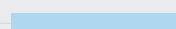
eDelivery Building Block

- An update

eGov Portal

Deliver Documents

eDelivery

Exchange data and documents securely

CEF eDelivery Service offering

ENABLING SERVICES *enable the adoption of the core services*

SOFTWARE

Sample software
P **V** **P**

Access Point (AP)

Service Metadata Publisher (SMP)

Service Metadata Locator (SML)

OPERATIONS

Managed Services	Testing	Support
P **V** **P**	**P** **V** **P**	**P** **V** **P**
Public Key Infrastructure (PKI)	Connectivity testing	Service desk
Service Metadata Locator (SML)	Conformance testing **V**	Training & Deployment **P**

ENHANCING SERVICES *enhance customer experience*
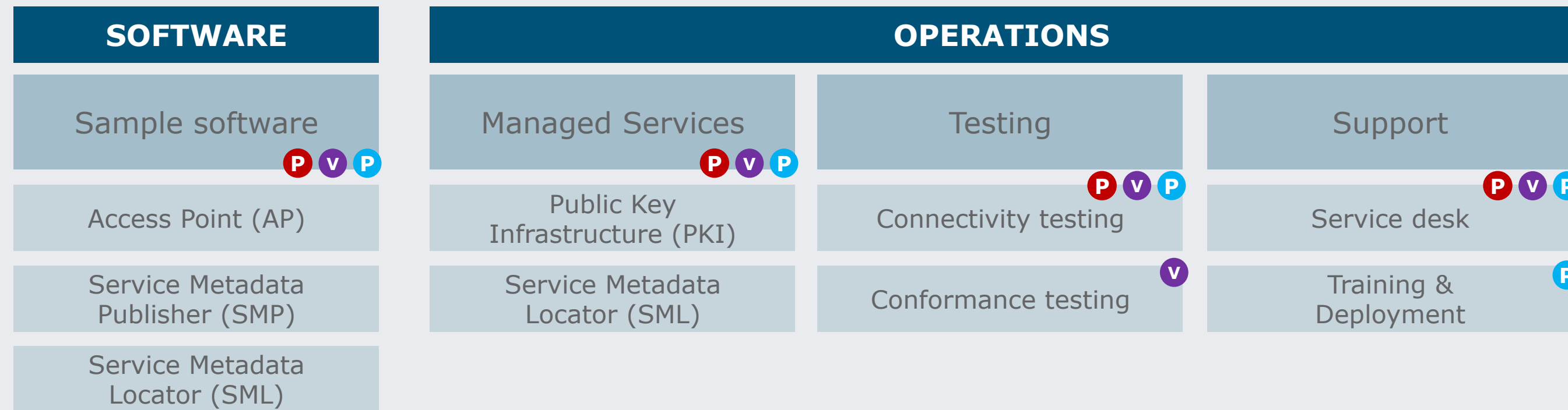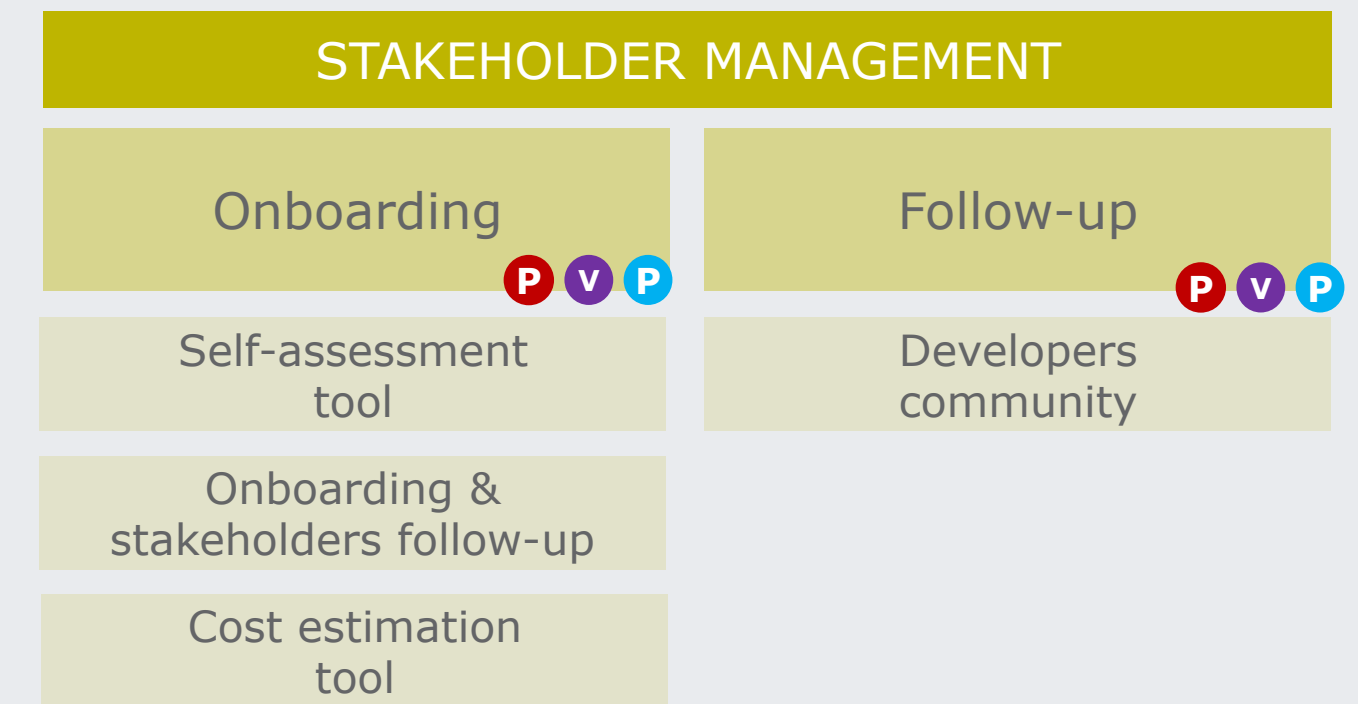
STAKEHOLDER MANAGEMENT

Onboarding	Follow-up
P **V** **P**	**P** **V** **P**
Self-assessment tool	Developers community
Onboarding & stakeholders follow-up	
Cost estimation tool	

CORE SERVICES *facilitate cross-border/ cross-sector technical interoperability among heterogeneous information systems*

TECHNICAL SPECIFICATIONS

European Profiles	Implementing Acts	Implementing Guidelines
P **V** **P**		**P** **V** **P**
Access Point specifications		Security controls guidance
SMP specifications		
SML specifications		

STANDARDS OF ESOs
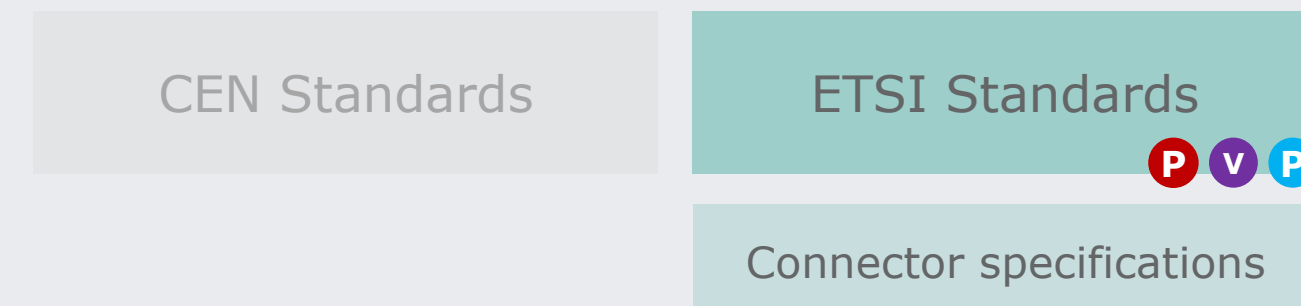
CEN Standards	ETSI Standards
	P **V** **P**
	Connector specifications

USER

- **P** Cross-border projects – Public sector entities
- **P** Cross-border projects – Private sector entities
- **V** Software vendors

eDelivery *onboarding-race*

PHASE	PROSPECTING	ELICIT requirements	COMMITEMENT GATE	DESIGN eDelivery infrastructure	SELECT eDelivery solutions	DEPLOY eDelivery solutions	OPERATE eDelivery solutions	
CEF DSIs	EU Student eCard DG CNECT *(NEW)* Platform on Disinformation DG CNECT *(NEW)*			eHealth (AS4) DG SANTE		eHealth (SMP) DG SANTE EESSI DG EMPL eTranslation DGT	ODR DG JUST eProcurement (*) GROW | DIGIT BRIS DG JUST	e-Justice | eCodex DG JUST ELRC DGT
Other Policy Projects	Customs Single Window DG TAXUD ECRIS DG JUST Central Clearance Import DG TAXUD Inland Waterway Transport DG MOVE CISE DG MARE Exchange of road-safety-related traffic offences DG MOVE *(NEW)*	eTransport Docs DG MOVE NIVA project REA/AGRI/CNECT *(NEW)* FLUX TL DG MARE Maritime Single Window DG MOVE Single Digital Gateway DG GROW *(NEW)*			ICS2 DG TAXUD TAPAS DG TAXUD SPEED2 DG TAXUD IRI DG JUST TACHOnet DG MOVE	DECIDE (upgrade) SG EUDAMED 3 DG GROW eEvidence DG JUST	EPREL DG ENER PNR *(regulated)* DG HOME	EU-CEG DG SANTE
Member State led projects (including CEF grants)	Global Interoperability Framework EESPA *(NEW)*			Utdataprojektet DIGG X-Road NIIS	EDI4STEEL TNO (NL) *(NEW)*	eDelivery national gateway AMA (PT) *(NEW)*	NOBLE project (Postal Services) TOOP (once-only) Slovenia Supreme Court's communications Laurentius e-Impact (CEF Transport) Development of NL eDelivery gateway RINIS	PEPPOL (upgrade to AS4) iADAATPA Pangeanic's consortium e-Boks Nets and PostNord Logistics Single Window Safety and Maritime services (PT)
Other institutions	European Aviation Safety Agency European Anti-Fraud Office Eurojust IMMC Parliament European Citizens' Initiative	EMSA SafeSeaNet		OSS system European Agency for Railways		CIxP The European Council	eDocX2017 DG HOME (EMCDDA) PCN system European Chemicals Agency	ENTSOG (Gas operators)

(*) Also part of PEPPOL

Pilot/PoC projects

EUDAMED

A Connecting Europe Success Story

Member States need to ensure that medical devices comply with provisions of **Medical Devices Directives**.

Enable transmission of **data from more than 80,000** manufacturers and notified bodies.

Share knowledge about technological progress, faulty devices and approved machinery.

WHO ARE WE CONNECTING

Competent Authorities in Member States + European Commission (DG-ENTR) + Industry operators

BENEFICIARIES

BUILDING BLOCKS USED

EUDAMED

Citizens (patients): enjoy better healthcare and health protection

Businesses (Medical Device Manufacturers): easier to launch new products

Medical professionals: informed decisions thanks to increased transparency of the medical device market
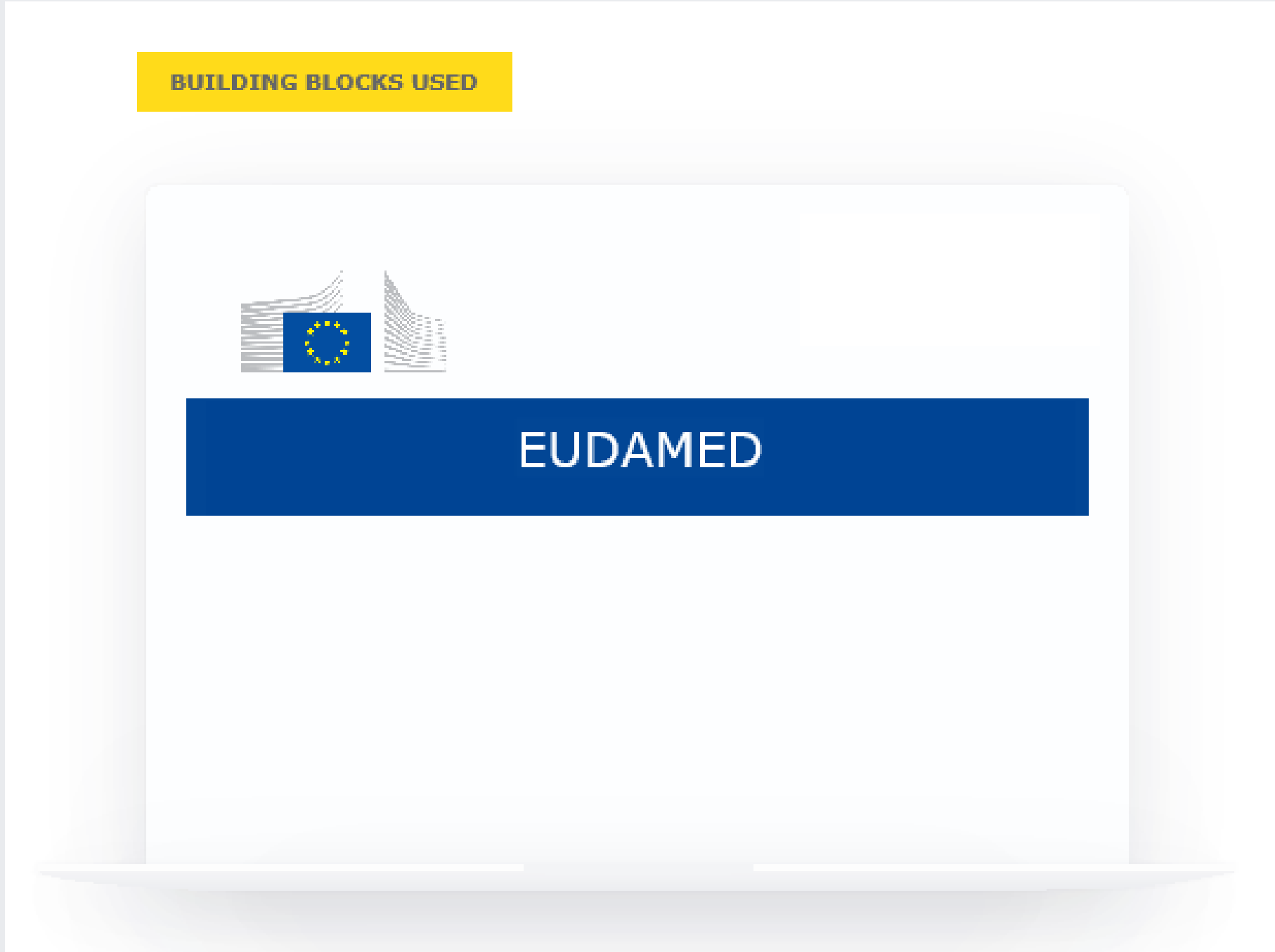
POWERED BY THE CEF BUILDING BLOCKS

eID   eDelivery   eInvoicing   eSignature   eTranslation
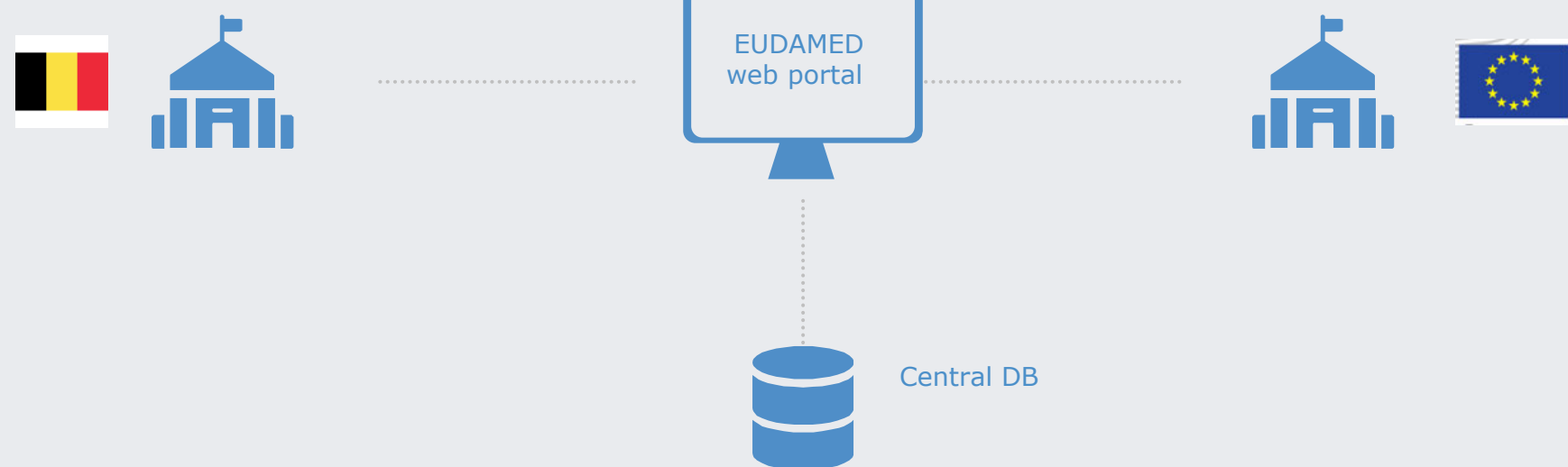
Context Broker   eArchiving   BDTI

EUDAMED

A Connecting Europe Success Story

A medical professional in Belgium wants to report an incident that incurred using a medical device

EUDAMED web portal

Central DB

1. Medical professional logs into the vigilance module of EUDAMED, a secure web-based portal.

2. User is able to load, extract and modify data, and to make reports and queries on the EUDAMED database.

3. Data is securely transmitted using eDelivery.

4. Data is accessible across Europe.

*EUDAMED aims to enhance overall **transparency**, including **better access to information** for public and healthcare professionals. In addition, the objective is to **avoid multiple reporting requirements**, to **enhance coordination** between the Member States and to **streamline and facilitate the flow of information** between economic operators, notified bodies or sponsors and the Member States, and between the Member States among themselves and with the European Commission.*

Find out more!

How can the CEF building blocks help you achieve your objectives?

Visit our website

Learn more on how to get started with the building blocks and get access to specific content such as our Success Stories, tech articles, sample software / specifications, etc.
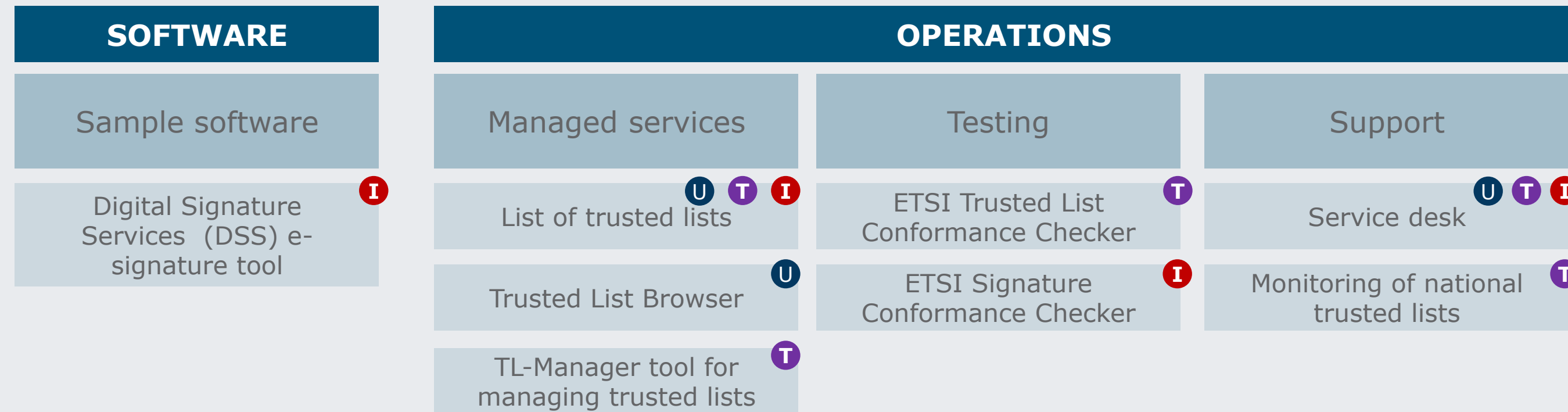
http://ec.europa.eu/cefdigital

Contact us

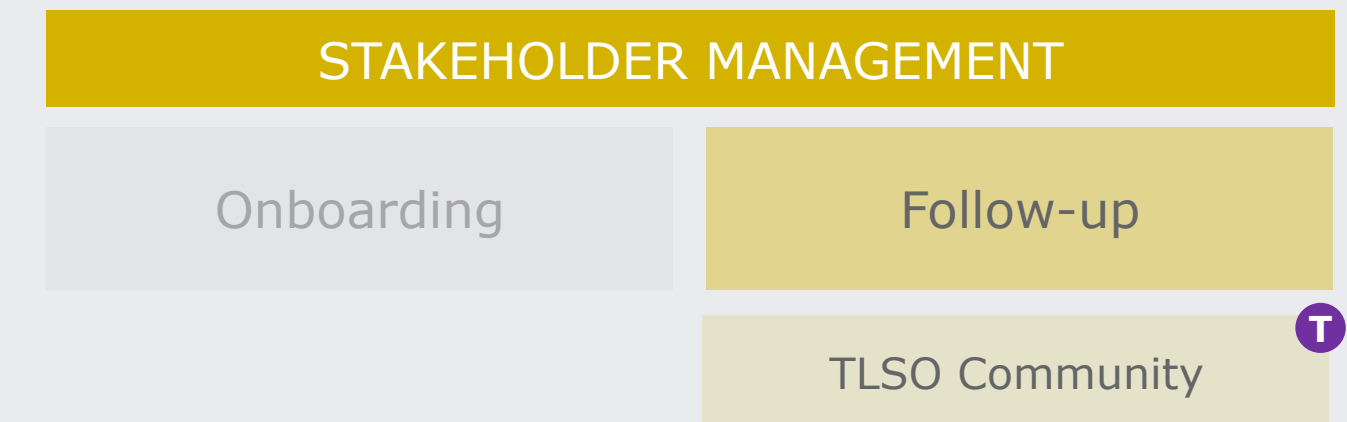Do you want to use the building blocks for your project? Do you want to tell us more about your project?

Contact us: cef-building-block@ec.europa.eu
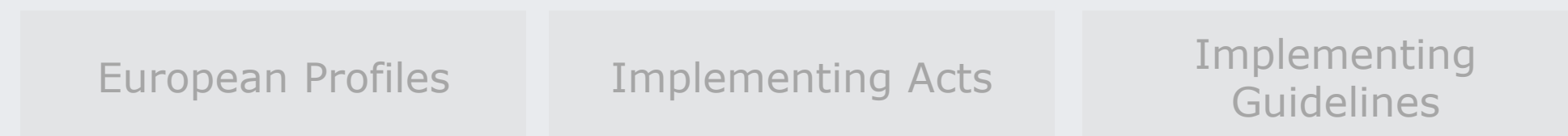
CEF eSignature Service Offering

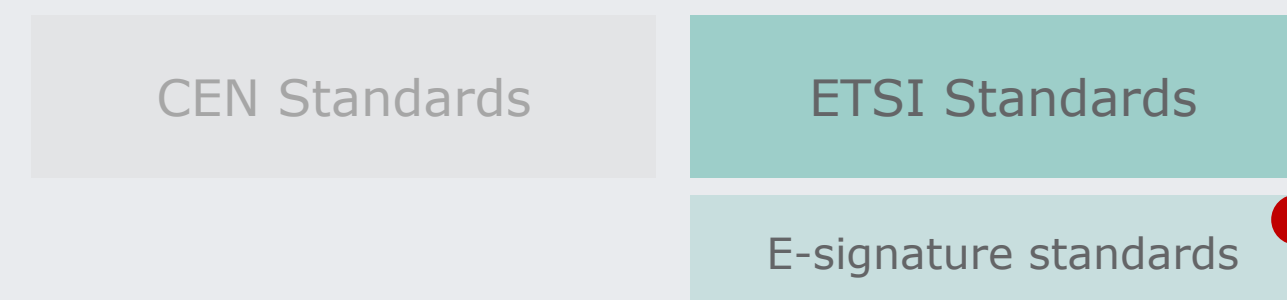## ENABLING SERVICES *enable the adoption of the core services*

SOFTWARE

Sample software

Digital Signature Services (DSS) e-signature tool **[I]**

OPERATIONS

Managed services

List of trusted lists **[U] [T] [I]**

Trusted List Browser **[U]**

TL-Manager tool for managing trusted lists **[T]**

Testing

ETSI Trusted List Conformance Checker **[T]**

ETSI Signature Conformance Checker **[I]**

Support

Service desk **[U] [T] [I]**

Monitoring of national trusted lists **[T]**

ENHANCING SERVICES *enhance customer experience*

STAKEHOLDER MANAGEMENT

Onboarding

Follow-up

TLSO Community **[T]**

TECHNICAL SPECIFICATIONS

European Profiles

Implementing Acts

Implementing Guidelines

STANDARDS OF ESOs

CEN Standards

ETSI Standards

E-signature standards **[I]**

Service offering Description (SoD)

All services are described in an SoD describing its purpose, the users for which it is for, its benefits and the process to obtain it

Service Level Arrangements (SLA)

Documents that describe Service Level Targets to be reached when delivering Building Block Services.

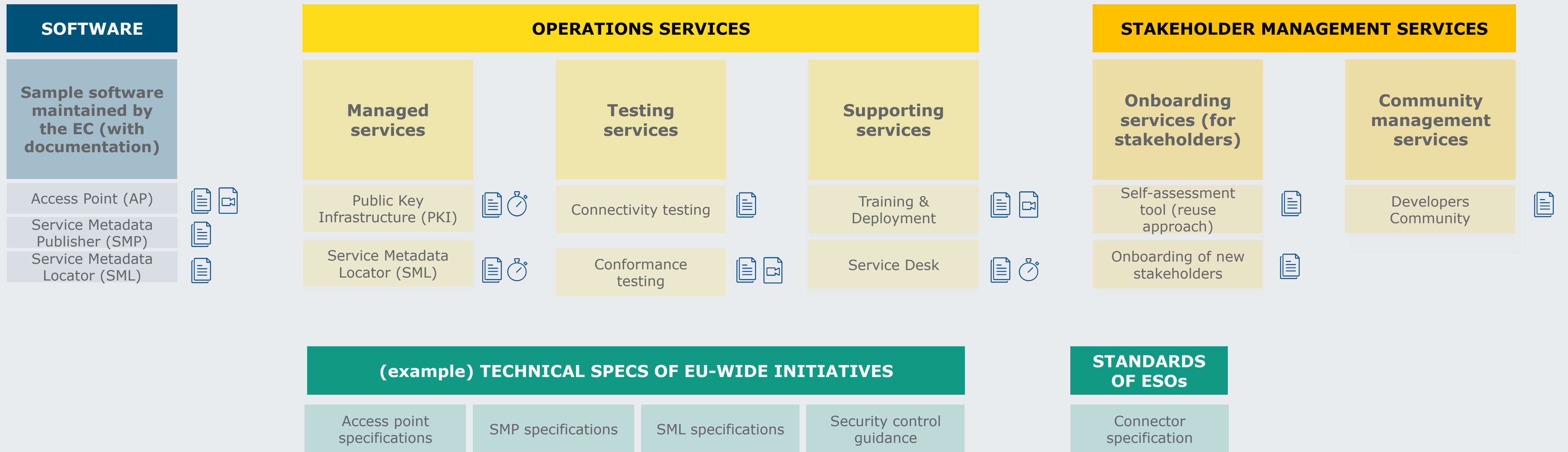**FAQs, videos, training, success stories**

Some services feature multimedia such as FAQs, introductory or instructional videos or success stories to help grasp what the service is about

CEF Digital platform

CEF eDelivery service offering, and more about the building block, can be found online

[CEF Digital >]

CEF eDelivery Service offering

SOFTWARE	OPERATIONS SERVICES			STAKEHOLDER MANAGEMENT SERVICES	
Sample software maintained by the EC (with documentation)	**Managed services**	**Testing services**	**Supporting services**	**Onboarding services (for stakeholders)**	**Community management services**
Access Point (AP)	Public Key Infrastructure (PKI)	Connectivity testing	Training & Deployment	Self-assessment tool (reuse approach)	Developers Community
Service Metadata Publisher (SMP)	Service Metadata Locator (SML)	Conformance testing	Service Desk	Onboarding of new stakeholders	
Service Metadata Locator (SML)					

(example) TECHNICAL SPECS OF EU-WIDE INITIATIVES				STANDARDS OF ESOs
Access point specifications	SMP specifications	SML specifications	Security control guidance	Connector specification

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CEF Digital >